Kenya Population from year 1974 to year 2022

An animated plot of the Kenya population increase.

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Imports

```python
import pandas as pd
import matplotlib.pyplot as plt
from matplotlib import animation
import requests
from IPython.display import HTML
```

Data and plot

The data has been sourced from the World Bank API.[1]

```
# Fetch population data for Kenya from the World Bank API
url = 'http://api.worldbank.org/v2/countries/KEN/indicators/SP.POP.TOTL?format=json'

# Send a GET request to the World Bank API
json = requests.get(url).json()[1]

# Extract the JSON data, rename and sort
data = pd.DataFrame(json, columns=['date', 'value'])\
    .rename(columns={'date': 'Year', 'value': 'Population'})\
    .sort_values(by='Year', ascending=True)\
    .reset_index(drop=True)
data
```

	Year	Population
0	1974	13203949.0
1	1975	13651908.0
2	1976	14102268.0
3	1977	14577346.0
4	1978	15087423.0
5	1979	15620613.0
6	1980	16187124.0
7	1981	16785962.0
8	1982	17411491.0
9	1983	18069461.0
10	1984	18753176.0
11	1985	19452161.0
12	1986	20160879.0
13	1987	20882094.0
14	1988	21626122.0
15	1989	22387803.0
16	1990	23162269.0
17	1991	23918235.0
18	1992	24655723.0
19	1993	25391830.0
20	1994	26133744.0
21	1995	26878347.0

[1]World Bank API -JSON

	Year	Population
22	1996	27615736.0
23	1997	28364264.0
24	1998	29137373.0
25	1999	29965129.0
26	2000	30851606.0
27	2001	31800343.0
28	2002	32779823.0
29	2003	33767122.0
30	2004	34791836.0
31	2005	35843010.0
32	2006	36925253.0
33	2007	38036793.0
34	2008	39186895.0
35	2009	40364444.0
36	2010	41517895.0
37	2011	42635144.0
38	2012	43725806.0
39	2013	44792368.0
40	2014	45831863.0
41	2015	46851488.0
42	2016	47894670.0
43	2017	48948137.0
44	2018	49953304.0
45	2019	50951450.0
46	2020	51985780.0
47	2021	53005614.0
48	2022	54027487.0
49	2023	NaN

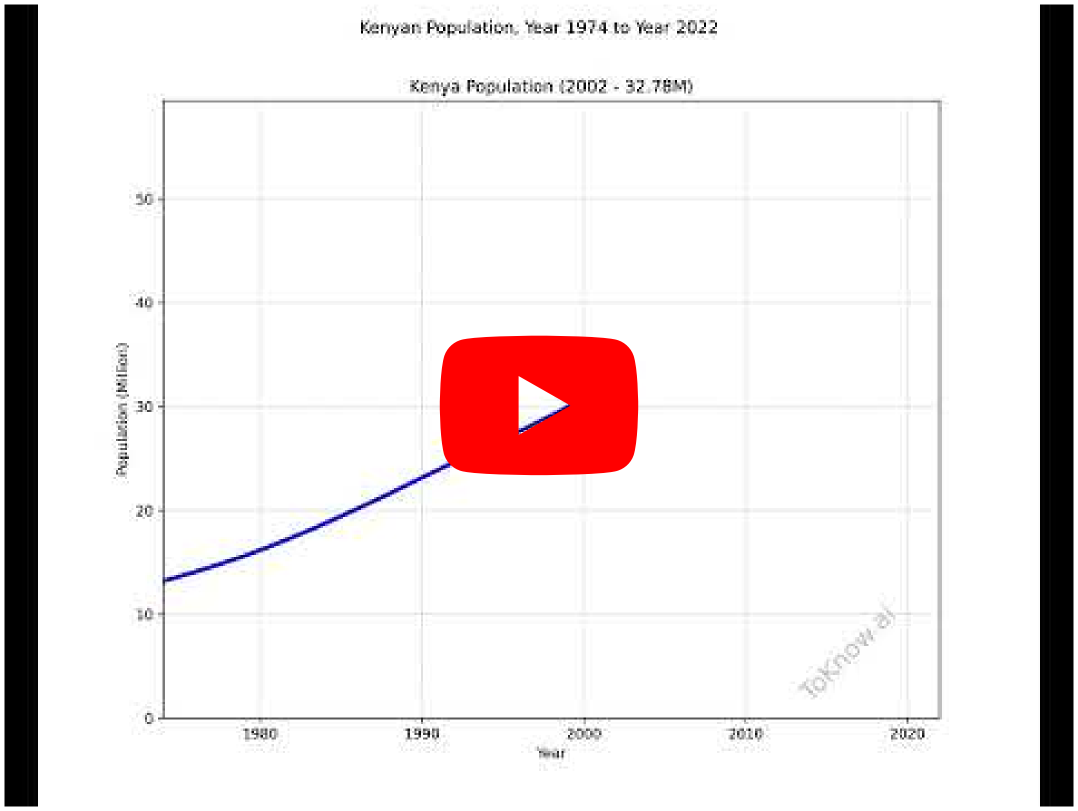
```python
data.dropna(inplace=True)
data['Year'] = data['Year'].astype(int)

populations = data['Population'] / 10**6  # Convert population to millions
years = data['Year']

# Set up the figure and axis
fig, ax = plt.subplots(figsize=(10, 8))
ax.set_xlabel('Year')
ax.set_ylabel('Population (Million)')
ax.grid(True, which='both', linestyle='--', linewidth=0.5)  # Add grid lines
```

```
# Create a line object
line, = ax.plot([], [], lw=3, color='blue')

# Function to update the animation frame
def animate(i):
    year = data['Year'].min() + i
    line.set_data(years[:i+1], populations[:i+1])

    ax.set_xlim(years.min(), years.max())
    ax.set_ylim(0, populations.max() * 1.1)
    ax.set_title(f'Kenya Population ({year} - {populations[i]:.2f}M)')

    return line,

# Create the animation
ani = animation.FuncAnimation(fig, animate, frames=len(data), interval=300, blit=True, repeat
fig.suptitle(f"Kenyan Population, Year {data.loc[0, 'Year']} to Year {int(data.iloc[-1]['Yea

# Add a watermark to the center of the plot
ax.text(0.95, 0.02, 'ToKnow.ai', ha='right', va='bottom',
        fontsize=18, color='gray', alpha=0.5, transform=ax.transAxes, rotation=45)

# Display the animation
plt.close(ani._fig)
```

Video

```
# ani.save('./index.mp4',  dpi=600)

HTML(f'<div class="ratio ratio-16x9">{ani.to_html5_video()}</div>')
```

Click to watch the video at Youtube.


Kenyan Population, Year 1974 to Year 2022
Kenya Population (2002 - 32.78M)
Population (Million)
Year
ToKnow.ai